

March 24, 1857.

Dr. Gray, F.R.S., in the Chair.

The following papers were read :—

1. ON THE NEST AND EGGS OF THE WAXWING (*BOMBYCILLA GARRULA*, TEMM.). BY JOHN WOLLEY, JUN., ESQ.

(Aves, Pl. CXXII.)

The Waxwing, as observed in Lapland, makes a good-sized and substantial nest, but without much indication of advanced art. It is of some depth, and regularly shaped, though built of rather intractable materials. As in those of many other birds in the Arctic forests, the main substance is of the kind of lichen commonly called tree-hair, which hangs so abundantly from the branches of almost every tree. This lichen somewhat resembles a mass of delicate root-lets, or perhaps may be compared to coarse brown wool; but some of it is whitish, and in one nest there is a little of this mixed with the ordinary brown or black. This main substance of the nest is strengthened below by a platform of dead twigs, and higher up towards the interior by a greater or less amount of flowering stalks of grass, and occasionally pieces of equisetum. It is also interspersed with a little rein-deer lichen, perhaps a sprig or two of green moss, and even some pieces of willow cotton. There may also be observed a little of the very fine silvery-looking fibre of grass leaves which probably have been reduced to that condition by long soaking in water. In one of the nests examined there were several pen-feathers of small birds as an apology for a lining. Of other nests which are to be found in the same forest, it most resembles, but is considerably less, than that of the Siberian Jay, which however is less securely put together, but has many more feathers and soft materials for a lining.

The nest of the Waxwing is built on the branch of a tree, not near the bole, and rather, as one of the observers has said, standing up from the branch like a Fieldfare's or other Thrush's nest, than supported by twigs touching it at the sides, as the nests of many birds are supported. Of six nests, four were in small Spruces, one in a good-sized Scotch fir, and one in a Birch—all placed at a height of from 6 to 12 feet above the ground. The tree in several instances was unhealthy, thin and scraggy in its branches, to which there hung a good deal of hair lichen; and the nest seems generally much exposed, though from its resemblance to the lichen hanging near, it might escape the eye. The nests found were in parts of the forest considerably open, once or twice on the side of low hills, near a river, or with an undergrowth of dwarf swamp-loving shrubs. But at present we have scarcely enough examples to show that there is a preference for any particular kind of ground.

Five seems to be the ordinary number of eggs; in one nest only

there were as many as six. They have a pale salmon(?) -coloured ground, upon which are distributed pretty equally good-sized purple spots, some with more and some with less deep colour, but nearly all of them having a shade or penumbra, such as is common especially in eggs of the Chaffinch. The only very marked variety I have yet seen, has short streaks and much smaller and more numerous spots than usual, of which markings a considerable proportion are of a pale yellowish-brown. The eggs may be about an inch in length, but hardly enough have been obtained to determine the average dimensions. Marked differences in size in the eggs of the same nest have not yet been observed; but, as with other birds, we find that one nest may have all its eggs considerably larger than those of another nest.

In the backward and cold spring of 1856, Waxwings had their full complement of eggs about the 12th of June.

The writer abstains for the present from offering any remarks on the distribution of this bird in the breeding season, hoping that upon this subject, as upon the habits of the Waxwing in the summer, he may hereafter have some more complete observations to communicate.

YOUNG OF THE WAXWING.

A young bird caught on the 5th of August, as it fluttered from the nest, had a general resemblance to the adult, though all the colours were more dull. The wax-like ends to the wing-feathers, the yellow tip to the tail, the black patch between the eye and the beak are all there, whilst the rich mahogany of the under tail-coverts is of a quieter brown; the blooming vinous colour of the head and back has not yet emerged from a homely neutral, and the crest is but just indicated by the longish feathers of the crown. The most marked difference between the adult and young is in the throat and under surface generally. There is at present scarcely a trace of the deep black patch of the chin, and the delicate tint of the general under surface of the adult is replaced by mottled neutral and white. This upon examination is found to owe its appearance to those longer webs, which arising towards the root of each feather, extend as far outwards as the webs which arise nearer its tip, being very pale or white, and thus relieving, on both sides, the last mentioned darker webs.

LAPLAND OWL. *Strix lapponica*, Temm.

Two nests of the Lap Owl were found in Finnish Lapland in 1856. In one near Sodankyla there were two eggs, and when one of the birds was shot, a third egg was found ready for exclusion. They were placed on the jagged end of the stump of a large Scotch fir, about 12 feet from the ground, at which spot the tree had been snapped across by some storm, the upper part not yet entirely separated, but sloping downwards till the greater part of its weight was supported by the ground.

The other nest was near the Aunasjoki, at the top of a lowish Scotch fir. Some time previously in the same year a bird had

been shot at this spot, which was found to be a female with eggs inside. The nest was not observed until after the shot was fired. At the second visit on the 28th of May, there were two eggs in the nest, and again a bird was shot, which turned out to be a new female with a fully-formed egg inside, through which the bullet had passed. The skin is now in England. The birds seemed on both occasions remarkably fearless.

The eggs are smoother, and, as might be expected, considerably smaller than those of the Eagle Owl. The dimensions of the two in the last-mentioned nest are 2 in. \times 1.6 in. and 2.1 in. \times 1.65 in.

At the meeting of Scandinavian naturalists in Christiania last summer, before I heard of these two nests having been found, I was able to announce that the Lap Owl generally makes its nest on the top of a stump. I had received several reliable accounts from different woodsmen, but had never found a nest myself, or been able to get the eggs, which indeed have, I believe, hitherto been unknown to ornithologists. It appears that three is the ordinary number of eggs.

TENGMALM'S OWL. *Strix Tengmalmi*, Gmel.,

lays its eggs in holes of trees and occasionally in egg-boxes. When once established it cannot easily be made to leave its quarters, and it can, as it is said, keep possession against a much larger bird; yet from the present nest (the only one I have had the good fortune to meet with), after having laid four eggs, the mother was ejected by a Golden Eye. The dimensions of the egg accompanying this paper are 1.32 in. \times 1.05.

Muoniovara, February 2nd, 1857.

2. ON THE SKULL OF A SPECIES OF MECISTOPS INHABITING THE RIVER BINUË OR TSÁDDA, IN CENTRAL AFRICA.

BY DR. BALFOUR BAIKIE, F.R. Geogr.S., ETC.

The genus *Mecistops*, from the fewness of its numbers and the retired localities which it inhabits, is but little known, scarcely any mention of it being found in zoological writings. It was first distinguished as a species of *Crocodylus* by Cuvier, from a specimen still preserved in the Museum of the Royal College of Surgeons in London, and which he named *C. cataphractus*. Since that time two other species have been described, *M. Bennettii* or *M. leptorhynchus* from Western Africa, and *M. Journei*, said to be from New Guinea. With the exception of this latter species it is quite an African genus, inhabiting the various rivers falling into the Atlantic. In the 'Proceedings of the Zoological Society' for 1835, p. 128, the *C. leptorhynchus* of Bennett is said to have come from Fernando Po; but I should think that this, except established on undoubted authority, must be incorrect, chiefly because in that island the physical conditions requisite for its existence are wanting. Fernando Po is a small volcanic island, totally without the muddy rivers delighted in by